Year 4 Maths Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Autumn	Unit 1 Place value					Unit 2	Unit 2 Addition and subtraction		Unit 3 Length and perimeter			Unit 4 Multiplication and division	Consolidation
Spring	Unit 4 Multiplication and division					Unit 5 Area	Unit 6 Fractions				Consolidation		
Summer	Unit 7 Decimals			Unit 8 Money		Unit 9 Time	Unit 9 Time	Unit 10 Statistics	Unit 11 Properties of shape		Unit 12 Position and direction		Consolidation

Number	Measurement	Geometry	Statistics

Year 4 Maths Curriculum 2021-22

Year 4 maths curriculum map 2021-22

COVID Recovery Curriculum

NCETM prioritisation curriculum/ NCETM spines/ White Rose SOL/ DFE Ready to Progress criteria have all been used to support the planning, teaching and learning of mathematics.

Rough suggestions are given for the intended length of each unit, but teachers are expected to adjust according to the needs and prior learning of their pupils.

Unit	Unit name	Learning outcomes	Links with other resources
1 (4/5 weeks)	**Place Value** **White Rose**	1) Pupils will use Base 10 to represent numbers to 1,000. (represent numbers to 1,000) 2) Pupils will read numbers shown in different representations on a place value grid, and write them in numerals. (100s, 10s and 1s) 3) Pupils estimate, work out and write numbers on a number line. (Number line to 1,000) 4) Pupils round 2 and 3-digit numbers to nearest 10. (Round to the nearest 10) 5) Pupils round 3 digit numbers to the nearest 100. (Round to the nearest 100) 6) Pupils recognise that a 1000 is made up of ten hundreds. (Count in 1,000s) 7) Pupils represent numbers to 9,999, using concrete resources on a place value grid. They understand that a four digit number is made up of 1,000s, 100s, 10s and 1s.(1,000s, 100s, 10s and 1s) 8) Pupils explore how numbers can be partitioned in more than one way. (Partitioning) 9) Pupils estimate, label and draw numbers on a number line to 10,000 (Number line to 10,000) 10) Pupils find 1, 10 and 100 more or less than a given number, representing their answer in a variety of different ways. For example, as numerals or words, or with concrete manipulatives. (Find 1, 10, 100 more or less) 11) Pupils find 1,000 more or less than a given number. (1,000 more or less) 12) Pupils compare 4-digit numbers using comparison language and symbols to determine/show which is greater and which is smaller. (Compare numbers) 13) Pupils order a set of numbers in ascending and descending order, using a variety of representations. (Order numbers) 14) Pupils round numbers to the nearest 1,000. (Round to the nearest 1,000) 15) Pupils will count in 25s to spot patterns. (Count in 25s) 16) Pupils will count back through zero using correct mathematical language of "negative four" rather than "minus four" for example. 17) Pupils will explore Roman numerals to 100.	4NPV–1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100. 4NPV–2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning. 4NPV–3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each. 4NPV–4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100). 1.22 Composition and calculation: 1,000 and four-digit numbers White Rose – Place Value unit

2 (3 weeks)	**Addition and Subtraction** **NCETM prioritisation unit 1**	**Review of column addition and subtraction** 1) Pupils identify the addends and the sum in column addition 2) Pupils use their knowledge of place value to correctly lay out column addition 3) Pupils add a pair of 2-digit numbers using column addition 4) Pupils add using column addition 5) Pupils use their knowledge of column addition to solve problems 6) Pupils add a pair of 2-digit numbers using column addition with regrouping in the ones column 7) Pupils add a pair of 2-digit numbers using column addition with regrouping in the tens column 8) Pupils add using column addition with regrouping 9) Pupils use known facts and strategies to accurately and efficiently calculate and check column addition 10) Pupils use their knowledge of column addition to solve problems 11) Pupils identify the minuend and the subtrahend in column subtraction 12) Pupils subtract using column subtraction 13) Pupils subtract from a 2-digit number using column subtraction with exchanging from tens to ones 14) Pupils subtract from a 3-digit number using column subtraction with exchanging from hundreds to tens (1) 15) Pupils subtract from a 3-digit number using a column subtraction with exchanging from hundreds to tens (2) 16) Pupils evaluate the efficiency of strategies for subtraction	3AS–2 Add and subtract up to three-digit numbers using columnar methods. 1.20 Algorithms: column addition 1.21 Algorithms: column subtraction White Rose – Addition and subtraction unit
3 (3 weeks)	**Length and Perimeter** **White Rose and NCETM prioritisation unit 3 for perimeter.**	**Length (White Rose)** 1) Pupils recognise that 100 cm is equivalent to 1 metre. They use this knowledge to convert other multiples of 100 cm into metres and vice versa. (Equivalent lengths - m and cm) 2) Pupils recognise that 10 mm is equivalent to 1 cm. They use this knowledge to convert other multiples of 10 mm into centimetres and vice versa. (Equivalent lengths - mm and cm) 3) Pupils multiply and divide by 1,000 to convert between kilometres and metres. (Kilometres) 4) Pupils add lengths given in different units of measurement. (Add lengths) 5) Pupils subtract lengths given in different units of measurement. (Subtract lengths) **Perimeter** 1) A regular polygon has sides that are all the same length and interior angles that are all equal in size 2) Perimeter is the distance around the edge of a two-dimensional shape 3) Different shapes can have the same perimeter 4) Perimeter is measured in units of length and can be found by counting units 5) Perimeter can be calculated by adding together the side lengths of a 2D shape 6) The perimeter of a rectangle can be calculated by addition and multiplication 7) Unknown side lengths can be calculated from perimeter and known side lengths 8) The perimeter of a regular polygon can be calculated by multiplication 9) The side length of a regular polygon can be calculated by division where the perimeter is known	4G–2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons. 2.16 Multiplicative contexts: area and perimeter 1 White Rose – unit White Rose – Length and perimeter unit

4 (6 weeks)	**Multiplication and Division** **White Rose** and reference **NCETM** **(Prioritisation unit 4, 5, 6 and 12)**	(Cross reference NCETM unit 6) 1) Multiply by 10 2) Multiply by 100 3) Divide by 10 4) Divide by 100 5) Multiply by 1 and 0 6) Divide by 1 and itself (Cross reference NCETM unit 4) 7) Multiply and divide by 3 8) The 3 times-table 9) Multiply and divide by 6 10) 6 times table and division facts 11) Multiply and divide by 9 12) 9 times table and division facts (Cross reference NCETM unit 5) 13) Multiply and divide by 7 14) 7 times table and division facts 15) 11 and 12 times table 16) Multiply 3 numbers **This will continue to be a focus throughout our fluency sessions.** 17) Factor pairs 18) Efficient multiplication 19) Written methods 20) Multiply 2 digits by 1 digit (1) 21) Multiply 2 digits by 1 digit 22) Multiply 3 digits by 1 digit 23) Divide 2 digits by 1 digit (1) 24) Divide 2 digits by 1 digit (1) 25) Divide 2 digits by 1 digit (2) 26) Divide 2 digits by 1 digit (2) 27) Divide 3 digits by 1 digit 28) Correspondence problems	4MD–1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. 4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. 4MD–3 Understand and apply the distributive property of multiplication. 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) 2.10 Connecting multiplication and division, and the distributive law 2.13 Calculation: multiplying and dividing by 10 or 100 4NF–1 Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number. 2.8 Times tables: 3, 6 and 9, and the relationship between them 2.9 Times tables: 7 and patterns within/across times tables Division with remainders 4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders. • 2.12 Division with remainders White Rose – Multiplication and division unit
5 (1 week)	**Area** **White Rose**	1) What is area? 2) Counting squares 3) Making shapes 4) Comparing area	

Week	Topic	Content	Reference
6 (4 weeks)	**Fractions** **White Rose** and reference **NCETM** **prioritisation unit 8** **and 9**	1) Unit and non-unit fractions 2) What is a fraction? 3) Tenths 4) Count in tenths 5) Equivalent fractions (1) 6) Equivalent fractions (2) 7) Equivalent fractions (1) 8) Equivalent fractions (2) 9) Fractions greater than 1 10) Count in fractions 11) Add fractions 12) Add 2 or more fractions 13) Subtract fractions 14) Subtract 2 fractions 15) Subtract from whole amounts 16) Fractions of a set of objects (1) 17) Fractions of a set of objects (2) 18) Calculate fractions of a quantity 19) Problem solving – calculate quantities	3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. 3.1 Preparing for fractions: the part–whole relationship 4F–1 Reason about the location of mixed numbers in the linear number system. 4F–2 Convert mixed numbers to improper fractions and vice versa. 4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. 3.5 Working across one whole: improper fractions and mixed numbers White Rose – Fraction unit
7 (3 weeks)	**Decimals** **White Rose** (Teach part 1. Part 2 will be covered I Year 5).	1) Pupils recognise tenths and hundredths using a hundred square. (Recognise tenths and hundredths) 2 Using the hundred square and Base 10, pupils can recognise the relationship between $\frac{1}{10}$ and 0.1 (Tenths as decimals) 3) Pupils read and represent tenths on a place value grid. They see that the tenths column is to the right of the decimal point. (Tenths on a place value grid) 4) Pupils read and represent tenths on a number line. (Tenths on a number line) 5) Pupils use counters on a place value chart to see how the digits move when dividing by 10. Pupils should make links. (Divide 1 digit by 10) 6) Pupils use a place value chart to see how 2 digit numbers move when dividing by 10 They use counters to represent the digits before using actual. (Divide 2 digits by 10) 7) Pupils recognise that hundredths arise from dividing one whole into one hundred equal parts. (Hundredths) 8) Using the hundred square and Base 10, pupils can recognise the relationship between $\frac{1}{100}$ and 0.01. (Hundredths as decimals) 9) Pupils read and represent hundredths on a place value grid. (Hundredths on a place value grid) 10) Pupils use counters on a place value chart to see how the digits move when dividing by 100. (Divide 1 or 2 digits by 100)	White Rose – decimal unit part 1

8 (2 weeks)	**Money** **White Rose**	1) Pupils develop their understanding of pounds and pence. (Pounds and pence) 2) Pupils use their knowledge of £1 = 100 p to compare amounts. Pupils begin by ordering amounts represented in (Ordering money) 3) Pupils round amounts of money written in decimal notation to the nearest pound. They estimate (Estimating money) 4) Pupils convert between pounds and pence using the knowledge that £1 is 100 pence. (Convert pounds and pence) 5) (Pupils add two amounts of money using pictorial representations to support them. (Add money) 6) Pupils will use different methods to subtract money. (Subtract money) 7) Pupils will use a number line and a part-whole model to subtract to find change. (Give change) 8) Pupils solve simple problems with money, involving all four operations. Pupils are not expected to formally add with (Four operations)	White Rose – money unit
9 (2 week)	**Time** **White Rose**	1) Pupils tell the time to the nearest 5 minutes on an analogue clock. (Telling the time to 5 minutes) 2) Pupils tell time to the nearest minute using an analogue clock. They use the terms 'past' and 'to'. (Telling the time to the minute) 3) Pupils use 'morning', 'afternoon', 'a.m.' and 'p.m.' to describe the time of day. (Using a.m. and p.m.) 4) Pupils are introduced to telling the time on a 24-hour digital clock for the first (24 hour clock) 5) Pupils recap the number of minutes in an hour and seconds in a minute to convert between different units of time. (Hours, minutes and seconds) 6) Pupils recap the concept of a year, month, week and day to convert between different units of time. (Years, months, weeks and days) 7) Pupils convert between analogue and digital times using a format up to 12 hours. They use a.m. and p.m. to distinguish (Analogue to digital - 12 hour 8) Pupils now move on to convert between analogue and digital times using a 24 hour clock. (Analogue to digital - 24 hour)	White Rose – time unit
10 (1 week)	**Statistics** **White Rose**	1) Pupils revisit how to use bar charts, pictograms and tables to interpret and present discrete data. 2) Pupils solve comparison, sum and difference problems using discrete data with a range of scales. 3) Pupils are introduced to line graphs in the context of time. They use their knowledge of scales to read a time graph accurately and create their own graphs to represent continuous data. 4) Pupils continue to solve comparison, sum and difference problems using continuous data with a range of scales.	White Rose – statistics unit ==Cross curricula link with science and geography.==
11 (2 weeks)	**Properties of shape** **White Rose**	1) Pupils will recognise angles as a measure of a turn. They practice making $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}$ and whole turns from different starting points in both clockwise and anti-clockwise directions in practical contexts. (Turns and angles) 2) Pupils will recognise that a right angle is a quarter turn, 2 right angles make a half-turn, 3 right angles make three-quarters of a turn and 4 right angles make a complete turn. (Right angles in shapes) 3) Pupils will identify whether an angle is greater than or less than a right angle in shapes and turns, by measuring, comparing and reasoning in practical contexts.	Symmetry in 2D shapes • 4G–3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry. White Rose – Properties of shape unit

			They are introduced to the words 'acute' and 'obtuse' as a way of describing angles. (Compare angles)	
			4) Pupils develop their understanding of obtuse and acute angles by comparing with a right angle. (Identify angles) 5) Pupils compare and order angles in ascending and descending order. (Compare and order angles) 6) Pupils recognise, describe and draw 2-D shapes accurately (Recognise and describe 2D shapes) 7) Pupils will classify triangles for the first time using the names 'isosceles', 'scalene' and 'equilateral'. (Triangles) 8) Pupils name and accurately draw quadrilaterals including a square, rectangle, rhombus, parallelogram and trapezium. They describe their properties and highlight the similarities and differences between different quadrilaterals. (Quadrilaterals) 9) Pupils identify and find horizontal and vertical lines in a range of contexts. (Horizontal and vertical) 10) Pupils find and identify lines of symmetry within 2D shapes. (Lines of symmetry) 11) Pupils use their knowledge of symmetry to complete 2D shapes and patterns. (Complete a symmetric figure)	
12 (2 weeks)	**Geometry - Position and Direction** **White Rose**		1) Pupils are introduced to coordinates for the first time and they describe positions in the first quadrant. (Describe position) 2) Pupils develop their understanding of coordinates by plotting given points on a 2 D grid. (Draw on a grid) 3) Pupils move shapes and points on a coordinate grid following specific directions using language such as: left/right and up/down. (Move on a grid) 4) Pupils describe the movement of shapes and points on a coordinate grid using specific language such as: left/right and up/down. Sentence stems might be useful. They start with the (Describe movement on a grid)	Coordinates • 4G–3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry. White Rose – Position and direction unit

Dark grey references are ready-to-progress criteria from the DfE Guidance 2020

Light grey references are from the NCETM Primary Mastery Professional Development materials

Blue references are White Rose materials